FIG. 1 PRIOR ART

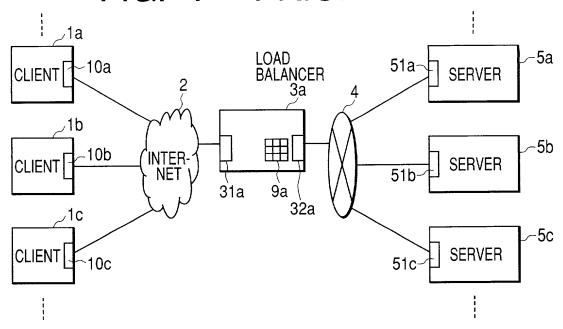


FIG. 2 PRIOR ART

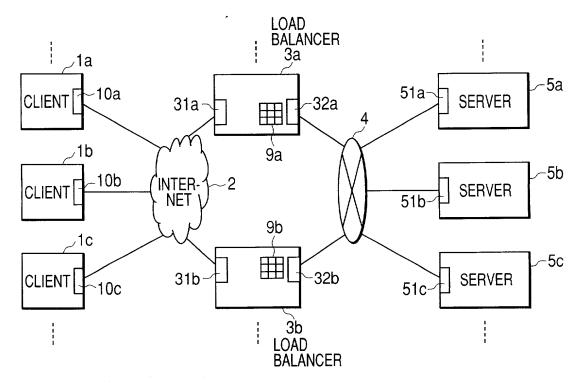


FIG. 3

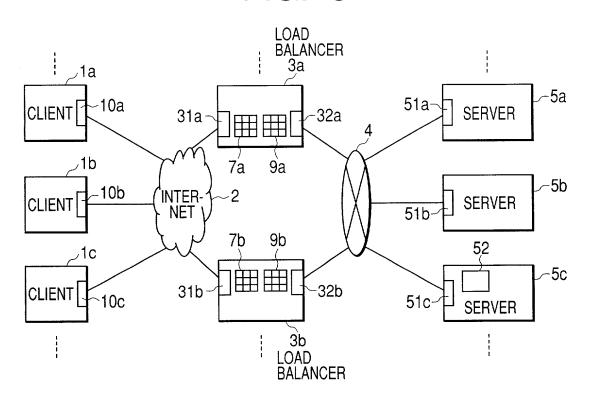


FIG. 4A

| SOURCE ADDRESS (CLIENT) | | DESTINATI ADDRESS (LOAD BAL | | OTHER INFORMATION |
|-------------------------------|------|-----------------------------------|------|----------------------|
| ΙP | PORT | IP | PORT | |
| 10a-IP | 1029 | 31a-IP-1 | 80 | |
| 800 | 801 | 802 | 803 | 804 |

<u>P1a</u>

<u>P5a</u>

FIG. 4B

| SOUI ADDI (CLIE | RESS | DESTINAT ADDRESS | | OTHER INFORMATION |
|-----------------------|------|---------------------|------|----------------------|
| IP | PORT | IP | PORT | |
| 10a-IP | 1029 | 51a-IP | 80 | |
| 805 | 806 | 807 | 808 | 809 |

FIG. 5

ACCESS CORRESPONDENCE TABLE <u>9a</u>

| CLIENT | | LOAD BALANCER (EXTERNAL INTERFACE) | SERVER | | TCP FLOW CONTROL | | NTROL |
|--------|------|---------------------------------------|--------|------|------------------|-------|----------------|
| IP | PORT | IP | IP | PORT | SEQ. | DELTA | TIME- STAMP |
| 10a-IP | 1029 | 31a-IP-1 | 51a-IP | 80 | 320 | 0 | |
| 10b-IP | 1028 | 31a-IP-2 | 51b-IP | 21 | 29 | 2 | |
| 1 | i | l | 1 | į. | l t | 1 | l l |
| 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 |

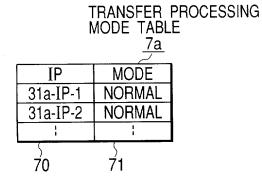
FIG. 6

ACCESS CORRESPONDENCE TABLE 9b

| CLIENT | | LOAD BALANCER (EXTERNAL INTERFACE) | SERVER | | TCP FLOW CONTROL | | |
|--------|------|---------------------------------------|--------|------|------------------|-------|----------------|
| IP | PORT | IP | IP | PORT | SEQ. | DELTA | TIME- STAMP |
| 10c-IP | 1050 | 31b-IP-1 | 51c-IP | 80 | 89 | 0 | _ |
| 1 | 1 | !!! | 1 | 1 | 1 | | i |
| 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 |

FIG. 7A

FIG. 7B



| | RANSFER MODE TABL 7b | PROCESSING E |
|----------|----------------------------|-----------------|
| IP | MODE | |
| 31b-IP-1 | NORMAL | |
| i | - 1 | |
| 1 | | |
| 70 | 71 | - |

FIG. 8A

FIG. 8B

FIG. 8C

TRANSFER PROCESSING MODE TABLE

7b

TRANSFER PROCESSING MODE TABLE 7b

| IP | MODE |
|----------|------------|
| 31b-IP-1 | NORMAL |
| 31a-IP-1 | TRANSITION |
| i | i i |
| 5 | 5. |
| 70 | 71 |

| | TRANSFE PROCESS MODE TA | SING |
|----------|-------------------------------|------|
| IP | MODE | |
| 31a-IP-2 | NORMAL | |
| 1 | | |
| | - | |
| 70 | 71 | - |

| IP | MODE |
|----------|--------|
| 31b-IP-1 | NORMAL |
| 31a-IP-1 | NORMAL |
| l I | 1 |
| 5 | |
| 70 | 71 |

FIG. 9

ACCESS CORRESPONDENCE TABLE 9b

| CLIENT | | LIENT LOAD BALANCER (EXTERNAL INTERFACE) | | SERVER | | TCP FLOW CONTROL | |
|--------|------|--|--------|--------|------|------------------|----------------|
| IP | PORT | IP | ΙP | PORT | SEQ. | DELTA | TIME- STAMP |
| 10c-IP | 1050 | 31b-IP-1 | 51c-IP | 80 | 89 | 0 | _ |
| 10b-IP | 1029 | 31a-IP-2 | 51a-IP | 80 | 320 | 0 | |
| - | ! | 1 | | 1 | 1 | 1 | |
| 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 |

FIG. 10

ACCESS CORRESPONDENCE TABLE 9a

| | | | | | | <u> </u> | |
|--------|------|---------------------------------------|--------|--------|-------|----------|----------------|
| CLIENT | | LOAD BALANCER (EXTERNAL INTERFACE) | SER | VER | TCP F | LOW CO | NTROL |
| IP | PORT | IP | IP | PORT | SEQ. | DELTA | TIME- STAMP |
| 10b-IP | 1028 | 31a-IP-2 | 51b-IP | 21 | 29 | 2 | |
| 1 | 1 | 1 | 1 | l t | 1 | l t | ! |
| 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 |

FIG. 11A

P1<u>a</u> DESTINATION ADDRESS (LOAD BALANCER) SOURCE ADDRESS **OTHER INFORMATION** (CLIENT) PORT ĬΡ **PORT** 31a-IP-1 10a-IP 1029 80 -----814 810 811 812 813

FIG. 11B

DESTINATION ADDRESS (SERVER) SOURCE ADDRESS (LOAD BALANCER) OTHER INFORMATION ΙP PORT ΙP **PORT** 51a-IP 32a-IP-1 80 2011 -----817 818 819 815 816

FIG. 12

ACCESS CORRESPONDENCE TABLE 90a

P5a

| | | | | | | | | | |
|--------|------|--------------------|----------|------|-----------------------|------|------------------|-------------|----------------|
| | | LOAD B | SERVER | | | | | | |
| CLIENT | | EXTERNAL INTERFACE | | | INTERNAL INTERFACE | | TCP FLOW CONTROL | | NTROL |
| IP | PORT | IP | IP | PORT | ΙP | PORT | SEQ. | DELTA | TIME- STAMP |
| 10a-IP | 1029 | 31a-IP-1 | 32a-IP-1 | 2011 | 51a-IP | 80 | 320 | 0 | |
| 10b-IP | 1028 | 31a-IP-2 | 32a-IP-2 | 2010 | 51b-IP | 21 | 29 | 2 | |
| ! | 1 | I I | 1 | ŀ | ! | 1 1 | ŀ | | 1 |
| 901 | 902 | 903 | 913 | 914 | 904 | 905 | 906 | 907 | 908 |

FIG. 13

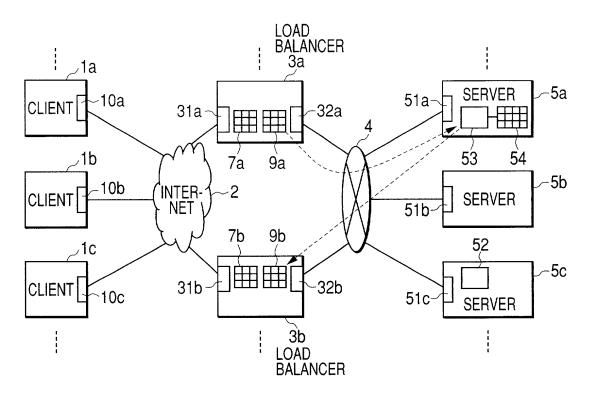


FIG. 14

TCP/IP CONNECTION TABLE 100

| CLII | CLIENT | | r HOST | TCP | FLÓW CONTROL |
|--------|------------|------------|--------|------------|--------------|
| IP | PORT | ΙP | PORT | SEQ. | TIMESTAMP |
| 10a-IP | 1029 | 51a-IP | 80 | 320 | |
| () | , <u>;</u> | , : | | <i>,</i> : | |
| 930 | 931 | 932 | 933 | 934 |) 935 |